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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,011	12/14/2001	John Feldner	018367-9704	7797
7590	10/31/2003			EXAMINER LE, DANG D
Casimir F. Laska Michael Best & Friedrich LLP 100 East Wisconsin Avenue Milwaukee, WI 53202-4108			ART UNIT 2834	PAPER NUMBER

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/017,011	FELDNER ET AL.	
	Examiner Dang D Le	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 16 September 2003.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-24 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-24 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) Notice of References Cited (PTO-892)      4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)      5) Notice of Informal Patent Application (PTO-152)  
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.      6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. (4,448,279) in view of Harer et al. (5,175,439).

Regarding claim 1, Watanabe et al. show a vehicle comprising:

- A plurality of wheels (20);

- An internal combustion engine (31) having a drive shaft (37) interconnected to drive at least one of the wheels;
- A stator having a core and a plurality of conductors disposed on the core in an unknown arrangement;
- A flywheel-rotor apparatus (39a) disposed adjacent to the stator and interconnected with the drive shaft, the flywheel-rotor apparatus being operable to magnetically interact with the stator to produce a current in the conductors, and to provide an inertia to the internal combustion engine;

Watanabe et al. do not show:

- The plurality of conductors disposed on the core in a three-phase arrangement;
- The flywheel-rotor apparatus being operable to magnetically interact with the stator to produce a three-phase alternating current in the conductors;
- A power circuitry electrically connected to the plurality of wires conductors, the power circuitry being operable to receive the three-phase alternating current and to controllably generate a single-phase alternating current; and
- An electrical outlet electrically connected to the power circuitry, the electrical outlet being configured to receive the single-phase alternating current and make the single-phase alternating current available for use by an operator.

For the purpose of supplying additional consumers with higher voltages, Harer et al. show:

- The plurality of conductors disposed on the stator core of the flywheel starter/generator in a three-phase arrangement (13a, b, c);
- The flywheel-rotor apparatus being operable to magnetically interact with the stator to produce a three-phase alternating current in the conductors (Figures 1 and 2);
- A power circuitry electrically connected to the plurality of wires conductors (Figure 4), the power circuitry being operable to receive the three-phase alternating current and to controllably generate a single-phase alternating current (38); and
- An electrical outlet (39) electrically connected to the power circuitry, the electrical outlet being configured to receive the single-phase alternating current and make the single-phase alternating current available for use by an operator.

Since Watanabe et al. and Harer et al. are all from the same field of endeavor, the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the three-phase AC generator and to provide a power circuitry with a receptacle as taught by Harer et al. for the purpose discussed above.

Regarding claim 2, it is noted that Harer et al. also show the power circuitry including:

- A regulator (11 and 26) that regulates the three-phase alternating current to a direct current (24VDC),
- A storage device (34) that stores the direct current, and
- An inverter (38) that converts the direct current to the signal-phase alternating current (220 V, 50Hz).

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammond (5,415,245) in view of Harer et al. (5,175,439).

Regarding claim 1, Hammond shows a vehicle comprising:

- A plurality of wheels (16);
- An internal combustion engine (12) having a drive shaft interconnected to drive at least one of the wheels;
- A stator having a core and a plurality of conductors disposed on the core in an unknown arrangement;
- A flywheel-rotor apparatus (52) disposed adjacent to the stator and interconnected with the drive shaft, the flywheel-rotor apparatus being operable to magnetically interact with the stator to produce a DC current in the conductors, and to provide an inertia to the internal combustion engine;

Hammond does not show:

- The plurality of conductors disposed on the core in a three-phase arrangement;
- The flywheel-rotor apparatus being operable to magnetically interact with the stator to produce a three-phase alternating current in the conductors;

- A power circuitry electrically connected to the plurality of wires conductors, the power circuitry being operable to receive the three-phase alternating current and to controllably generate a single-phase alternating current; and
- An electrical outlet electrically connected to the power circuitry, the electrical outlet being configured to receive the single-phase alternating current and make the single-phase alternating current available for use by an operator.

For the purpose of supplying additional consumers with higher voltages, Harer et al. show:

- The plurality of conductors disposed on the stator core of the flywheel starter/generator in a three-phase arrangement (13a, b, c);
- The flywheel-rotor apparatus being operable to magnetically interact with the stator to produce a three-phase alternating current in the conductors (Figures 1 and 2);
- A power circuitry electrically connected to the plurality of wires conductors (Figure 4), the power circuitry being operable to receive the three-phase alternating current and to controllably generate a single-phase alternating current (38); and
- An electrical outlet (39) electrically connected to the power circuitry, the electrical outlet being configured to receive the single-phase alternating current and make the single-phase alternating current available for use by an operator.

Since Hammond and Harer et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the three-phase AC generator and to provide a power circuitry with a receptacle as taught by Harer et al. for the purpose discussed above.

Regarding claim 2, it is noted that Harer et al. also show the power circuitry including:

- A regulator (11 and 26) that regulates the three-phase alternating current to a direct current (24VDC),
- A storage device (34) that stores the direct current, and
- An inverter (38) that converts the direct current to the signal-phase alternating current (220 V, 50Hz).

6. Claims 3, 4-7, and 9-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hammond in view of Harer et al. and further in view of Scott et al. (5,929,611).

Regarding claim 3, the vehicle of Hammond modified by Harer et al. includes all of the limitations of the claimed invention with the three-phase alternating current including a high-voltage, three-phase alternating current, wherein the single-phase alternating current includes a first-voltage, single-phase alternating current except for the stator further including a low-voltage conductor disposed on the core, and the

flywheel-rotor apparatus magnetically interacts with the low-voltage conductor to produce a second-voltage, single-phase alternating current in the low-voltage conductor.

Scott et al. show the stator further including a low-voltage conductor disposed on the core, and the flywheel-rotor apparatus magnetically interacts with the low-voltage conductor to produce a second-voltage, single-phase alternating current in the low-voltage conductor for the purpose of providing a control voltage for the system.

Since Hammond, Harer et al., and Scott et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the stator with an additional control coil as taught by Scott et al. for the purpose discussed above.

Regarding claims 4-7 and 9-24, it is noted that Hammond, Harer et al., and Scott et al. also show all of the limitations of the claimed invention.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hammond in view of Harer et al. and Scott et al. as applied to claim 3 above, and further in view of Bengtsson et al.

Regarding claim 8, the vehicle of Hammond modified by Harer and Scott et al. shows all of the limitations of the claimed invention as discussed above except for the core including a plurality of teeth, the total number of teeth being represented by (x)

where (x) is an integer, wherein the plurality of wires are disposed on (n) teeth where (n) is an integer less than (x), and wherein the low-voltage wire is disposed on (x - n) teeth.

Bengtsson et al. show the core including a plurality of teeth, the total number of teeth being represented by (x) where (x) is an integer, wherein the plurality of wires are disposed on (n) teeth where (n) is an integer less than (x), and wherein the low-voltage wire is disposed on (x - n) teeth for the purpose of providing dual voltages.

Since Hammond, Harer et al., Scott et al., and Bengtsson et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to dispose low-voltage wire on a number of teeth of the stator core as taught by Bengtsson et al. for the purpose discussed above.

***Information on How to Contact USPTO***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D Le whose telephone number is (703) 305-0156. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

October 22, 2003



DANG LE  
PRIMARY EXAMINER